

21th October

Byjus

1. Not just a case about improving investigation Category: GOVERNANCE

Syllabus: GS-2, Government policies and interventions aimed at development in various sectors and issues arising out of their design and implementation; Issues relating to development and management of Social Sectors; Important aspects of governance.

Mains: Challenges and Need for Police Reforms in India

Context: A recent judgment by the [Supreme Court of India](#) in the case of Rajesh & Anr. vs The State of Madhya Pradesh emphasized the necessity of establishing a consistent and dependable code of investigation to prevent the guilty from escaping justice on technicalities.

- The Court expressed concerns regarding the quality of police investigations, illegalities in the process, and recommendations from previous committees and commissions.

Interpretation of Section 27 of the Indian Evidence Act:

- The Court pointed out issues related to Section 27 of the Indian Evidence Act, which defines the admissibility of facts discovered based on information from a person "accused of any offence" while in the custody of a police officer.
- The Court held that a person cannot be considered in police custody until formally arrested, particularly if they are not mentioned as an accused person in the First Information Report (FIR).
- However, this interpretation does not align with earlier legal precedents. The term "custody" has been broadly interpreted to include situations where a suspect is under police surveillance and control and even indirect control over a suspect's movements is considered "police custody."

Emphasis on Compliance with Criminal Procedure Code (CrPC):

- The Court gave significant importance to compliance with Section 100(4) and Section 100(5) of the [Code of Criminal Procedure \(CrPC\)](#), which pertain to the presence of independent witnesses during searches and seizures.
- It was noted that non-compliance with these sections could not dilute the evidentiary value of discoveries made under Section 27 of the Indian Evidence Act.
- However, earlier judgments have recognized that the procedures for search and discovery are distinct, and the safeguards for compulsion in search proceedings do not apply to voluntary discovery during an investigation.

Quality of Police Investigations:

- The Court expressed regret over the poor quality of police investigations and the low conviction rate due to ineffective and unscientific investigations.
- It referred to recommendations from committees and commissions, including the Malimath Committee and the Law Commission, highlighting issues such as understaffed police stations, insufficient priority given to crime investigation, and a lack of skill development in the investigation process.
- The [Malimath Committee](#) had recommended the separation of the investigation wing from the law and order wing, which, while essential, requires a comprehensive review of State efforts in this regard.

The Core Problem

- Seventeen states have taken measures to separate the investigative and law and order functions of the police.

- The remaining states are not opposed to this directive but have yet to initiate the necessary steps for separation.
- When it came to overall compliance with the seven directives, nine States fell under the 'good and satisfactory' category and 20 States in the 'average and poor' category.
- The police authorities are, however, aware that unless additional manpower is sanctioned, except in major cities such as Delhi and Mumbai, it is practically difficult to separate the two wings because of a lack of manpower.

Other Issues:

- The investigating officers are inadequate in number and unable to upgrade their skills because there is a shortage of officers.
- Only symptomatic treatment of police reforms by having some provisions in the rules and regulations will not help much.
- The police stations are understaffed.
- There is no periodic exercise to upgrade the skills of investigation.

Significance:

- The judgment underscores the importance of a consistent and dependable code of investigation to ensure the guilty are held accountable.
- It highlights the need to strike a balance between preserving legal standards and improving investigation quality.

Way Forward:

- The Court should provide clear and consistent interpretations of legal provisions to avoid ambiguity and discrepancies.
- Policymakers and law enforcement agencies should focus on comprehensive police reforms, addressing issues like understaffing and skills development.
- State and Union Territory governments should ensure the separation of investigation from law and order duties per the Court's directives.

Nut Graf: There is a need for a consistent code of investigation along with improved investigations in India in order to solve the problem of low conviction rates.

Category: INTERNATIONAL RELATIONS

1. Frosty ties Syllabus: GS-2, Effect of policies and politics of

developed and developing countries on India's interests. **Mains:** Diplomatic tensions between India and Canada have more grassroots-level impacts

Context: India and Canada have witnessed a deterioration in their diplomatic relations, leading to a reduction in visa services and the withdrawal of Canadian diplomats. These tensions have escalated due to allegations made by the Canadian government regarding the involvement of Indian officials in a controversial case, despite India's demand for equalizing diplomatic missions and efforts for reconciliation.

Diplomatic Standoff:

- India sought to balance the number of diplomats in each other's missions, but tensions flared following allegations by the Canadian government that India was involved in the killing of a Canadian national and Khalistani activist, Hardeep Singh Nijjar.
- Despite initial hopes of resolving the situation through quiet diplomacy, the standoff persisted as Canada insisted that India cooperate in its investigations without providing further proof.

Reciprocal Actions:

- In response to the tit-for-tat expulsions of diplomats by both countries' security agencies, the Indian government suspended visas for all Canadians and demanded a reduction in the number of Canadian diplomats.
- India issued an ultimatum, requiring Canada to reduce two-thirds of its diplomats by October 31, threatening to unilaterally withdraw diplomatic immunity.

Legal Disputes:

- Canada contended that India's demand was a violation of international law, including the [Vienna Convention](#), which grants diplomatic immunity.
- India justified its stance under Article 11.1 of the Vienna Convention, which permits a host country to set limits on the size of a foreign mission.

Impact on Visa Services:

- As a result of the diplomatic standoff, Canada announced the discontinuation of "in-person" visa services at its consulate due to staffing shortages.
- The Canadian Immigration Minister asserted that India's actions would not deter Canada's prosecution in the Hardeep Singh Nijjar case.

Diplomatic Efforts Ineffective:

- Previous diplomatic meetings, including those between Prime Minister Modi and Prime Minister Trudeau, discussions involving the National Security Advisers, and interactions between External Affairs Minister S. Jaishankar and Canadian Foreign Minister Mélanie Joly, have failed to alleviate the situation.
- Mediation attempts by Canada's ["Five Eyes"](#) allies, while supportive of Canada's claims, have not yielded positive results.

Issues:

- The allegations and counter-allegations have resulted in a stalemate, with diplomatic efforts thus far proving ineffective.
- The reduction in visa services affects students, tourists, and businesspersons, potentially straining people-to-people and economic ties.

Way Forward:

- Diplomatic channels should remain open to seek resolution through dialogue and negotiation.
- Mediation efforts, including those by ["Five Eyes"](#) allies, can continue to promote peaceful resolution.
- Both countries should prioritize their long-standing friendly relations and explore opportunities for mutual cooperation.

Nut Graf: The ongoing diplomatic standoff between India and Canada has implications for people-to-people interactions and business ties. It underscores the need for diplomatic solutions and reconciliation to maintain positive bilateral relations.

1. PM flags off country's first Regional Rapid Transit System 'Namo Bharat'

Context: Prime Minister Narendra Modi inaugurated the country's first Regional Rapid Transit System (RRTS), known as 'Namo Bharat.' This monumental event marked a significant milestone in India's transportation infrastructure, with the Prime Minister personally taking a ride on a 17-km stretch from Sahibabad to Duhai Depot in Uttar Pradesh. The full 82-km Delhi-Ghaziabad-Meerut corridor is set to be operational by 2025.

Details: The Namo Bharat Train:

- Prime Minister Modi called the Namo Bharat train a symbol of India's promising future.
- He emphasized that this train marks the beginning of a new journey for India, connecting various regions and states.
- Highlighted the significance of the Delhi-Meerut stretch as just the initial phase, with plans to expand to other regions of Delhi, Uttar Pradesh, Haryana, and Rajasthan.
- The system aims to enhance connectivity and generate new employment opportunities.

Completion of the Project:

- Mr. Modi pointed out that he had laid the foundation stone of the project four years ago, and now he was back to inaugurate it.
- The rest of the project is expected to be completed in about one and a half years.

Regional Rapid Transit System (RRTS):

- RRTS is a rail-based, semi-high-speed, high-frequency commuter transit system.
- Designed with a speed of 180 kmph, it is a regional development initiative, providing high-speed intercity commuting with trains running at intervals as short as 15 minutes, which can be increased to as frequent as every five minutes when needed.
- Developed at a cost of over ₹30,000 crore, this system will enable commuters to travel between Delhi and Meerut in less than an hour.

Expansion Plans:

- A total of eight RRTS corridors have been identified for development in the National Capital Region.
- In the first phase, three RRTS corridors are prioritized for implementation: Delhi-Ghaziabad-Meerut, Delhi-Gurugram-SNB-Alwar, and Delhi-Panipat.

State-of-the-Art Infrastructure: Officials from the Housing and Urban Affairs Ministry highlighted that the RRTS is a state-of-the-art regional mobility solution, comparable to the best in the world.

Significance:

- The Namo Bharat RRTS represents a leap forward in India's public transportation infrastructure, offering speed, connectivity, and convenience.
- It will substantially reduce travel time between Delhi and Meerut, enhancing the overall efficiency of transportation in the region.
- The project is a testament to the government's commitment to delivering on its promises and improving connectivity across states and regions.

2. Gaganyaan Mission: ISRO is set for first test flight today

Context: The Indian Space Research Organisation (ISRO) is set to conduct a significant test flight as part of its Gaganyaan program, which aims to send humans into space. This mission marks a crucial step towards India's space exploration endeavours, with the potential to carry astronauts into the low-Earth orbit.

Details: Gaganyaan's First Flight Test – TV-D1:

- ISRO will conduct Gaganyaan's first Flight Test Vehicle Abort Mission-1 (TV-D1) on October 21.
- The mission's primary goal is to demonstrate the performance of the Crew Escape System (CES).

- The test vehicle is a single-stage liquid rocket equipped with the Crew Module (CM) and Crew Escape Systems (CES).
- The CM is an unpressurized version used for this flight, representing an abort scenario during ascent at Mach 1.2.
- The CES, along with the CM, will separate from the test vehicle at an altitude of about 17 km.
- The abort sequence includes the deployment of parachutes, ultimately leading to the safe landing of the CM in the sea, approximately 10 km from the coast of Sriharikota.
- The entire mission, from liftoff to CM recovery, is expected to take about eight and a half minutes.

Recovery by the Indian Navy:

- The Indian Navy will lead the recovery efforts of the TV-D1 Crew Module (CM) after touchdown.
- Recovery ships will be positioned in sea waters to approach the CM.
- A team of divers will attach a buoy, hoist the CM using a ship crane, and bring it to the shore for further examination.

Mission Objectives:

- The mission's primary objectives include the flight demonstration and evaluation of test vehicle subsystems.
- It also evaluates the CES and its various separation systems, along with the characteristics and deceleration systems of the CM at higher altitudes.
- The mission's fundamental purpose is to assess the safety and capabilities of the Crew Escape System (CES) in case of an emergency requiring an abort.

Gaganyaan Program Overview:

- The [Gaganyaan mission](#) seeks to demonstrate India's ability to launch three crew members into low Earth orbit and safely return them to Earth by landing either in the Bay of Bengal or the Arabian Sea.
- Prior to the first crewed flight, three test vehicle (TV) flights have been planned: TV-1, TV-2, and TV-3.
- Following the TV-D1 mission, the program will proceed with further testing and eventually carry a humanoid named VyomMitra in early 2023.

Significance:

- The Gaganyaan program is a significant milestone for India, demonstrating the country's capability to send humans into space.
- The success of this mission is crucial for ensuring the safety and reliability of the Crew Escape System (CES) in case of emergencies.
- The program aligns with India's aspirations to become a major player in space exploration and research.

3. Mehrauli park structures get facelift as Delhi digs deeper into its history

Context: A significant project, with an allocated budget of ₹2.6 crore, was initiated in March '23 to restore and conserve 55 historical monuments at the Mehrauli Archaeological Park in Delhi.

- The project aimed at reviving these historic structures, providing Delhi residents with an opportunity to delve into the city's rich history and heritage.
- This monumental undertaking, adjacent to the iconic Qutub Minar, was unveiled by Delhi's Lieutenant-Governor.

Historical Significance of Mehrauli Archaeological Park:

- The park, spread over 200 acres, is situated next to the [UNESCO World Heritage Site](#), Qutub Minar.
- It houses 55 historic structures constructed by various empires, including the Khaljis, Tughlaqs, Lodhis, Mughals, and the British.
- Several monuments have undergone extensive restoration and conservation work, breathing new life into their historical charm.

Diverse Historical Structures:

- The restored monuments include the Jamali Kamali Mosque, Metcalfe House, Rajon ki Baoli, and the tombs of Mamluk king Ghiyas-ud-din Balban and Mughal governor Shah Quli Khan.
- The project aims to bring to life Delhi's historical legacy that predates the medieval-era monuments, providing a broader perspective of the city's history.

Multi-Agency Collaboration:

- The restoration project was a collaborative effort involving multiple agencies, spearheaded by the Delhi Development Authority (DDA) and the [Archaeological Survey of India \(ASI\)](#).
- The total expenditure for this endeavour was approximately ₹2.6 crore.

Comprehensive Restoration:

- Alongside monument restoration, the project also involved desilting water bodies within the park and creating pathways to connect the various historical sites.
- Traditional materials and techniques were employed during the restoration and repair work, preserving the historical integrity of the structures.
- The redevelopment work adhered to the principles of the Master Plan for Delhi-2021 and the Unified Building Bye Laws, 2016, which promote the adaptive reuse of historic buildings.

4. OTT services, govt. reach uneasy compromise on smoking warnings

Context: Over-the-top (OTT) streaming services, including popular platforms like Netflix, Disney+ Hotstar, and Amazon Prime Video, have reached a compromise with the government regarding the inclusion of smoking warnings in their content.

- This compromise comes in response to the Ministry of Health and Family Welfare's notification on May 31, 2023, which required streaming services to display tobacco consumption warnings at the beginning of content containing smoking scenes, a move that deviates from international norms.

Differing Approaches by OTT Services:

- Some OTT platforms, like Hotstar, have incorporated video and on-screen warnings, even for older films.
- Others, such as Netflix, have opted for less intrusive messages, providing caution against tobacco consumption at the top left of the screen at the start of content featuring smoking scenes.

Government's Notification and Unique Requirement:

- The Ministry of Health and Family Welfare issued the Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Amendment Rules, 2023, on May 31.

- These rules mandated that streaming services, when depicting tobacco consumption, must display a warning at the beginning and include text scrolls during scenes featuring smoking.
- It's noteworthy that no other country has imposed such requirements on filmmakers and TV series creators.

Discussion and Disagreement:

- At a meeting, the Deputy Director of Mumbai's Tata Memorial Hospital advocated for stringent measures to reduce tobacco consumption.
- OTT services appealed for relaxed rules and extended compliance timelines, citing difficulties in implementing the requirements.
- Additional Secretary, resisted these appeals, emphasizing the necessity of implementing the rules despite any challenges.

Issues:

- OTT services, while acknowledging the importance of conveying anti-smoking messages, have concerns about the intrusive nature of the mandated warnings.
- The government's requirement to interrupt content with smoking warnings is unique and poses operational and artistic challenges for content creators.
- Balancing public health concerns with artistic freedom and the practicalities of content delivery has been a point of contention.

Vejjaram and Ray

Making Films Accessible to the Disabled Can Serve Everyone

Context

- Recently, Sarah Sunny made history by becoming the **first deaf advocate to use Indian Sign Language (ISL)** to argue a case in the Supreme Court.
- Soon after, Rahul Bajaj, **a blind advocate, made the case for media accessibility in cinema halls, in the Delhi High Court.**
- Under the Rights of Persons with Disabilities (RPwD) Act, 2016, **Rahul Bajaj is battling against the entertainment ecosystem to make reasonable accommodations.**

Rights of Persons with Disabilities (RPwD) Act, 2016

- The Rights of Persons with Disabilities Act, 2016 came into force in December 2016 to give effect to the **United Nations Convention on the Rights of Persons with Disabilities (UNCRPD).**
- The Right to Persons with Disabilities Act, 2016 (RPWD Act 2016) has categorised a person with disability into three parts:
 - Person with benchmark disability;
 - Person with disability;
 - People with disabilities having high support needs.
- In the RPWD Act 2016, there has been an increase in the type of disabled, which has been **increased from 7 types to 21 types and the Central Government has the power to add more to the list.**
- The RPWD Act 2016 has **increased the quantum of reservation for people suffering from disabilities from 3% to 4% in government jobs and from 3% to 5% in higher education institutes.**
- Every child with benchmark disability between the **age group of 6 and 18 years shall have the right to free education.**
- A **separate National and State Fund** be created to provide financial support to the persons with disabilities.

Challenges Faced by the Disabled in Absence of Media Accessibility

- **Difficulty for Disabled People to Access Digital Content**
 - Many websites, apps, and online resources **are not designed with accessibility in mind, making it difficult for people with disabilities to access them.**
 - This includes barriers to using assistive technologies like screen readers, magnifiers, or voice recognition software, which **makes it hard for people with visual, auditory, or motor disabilities to access the digital content.**
- **Language Barriers**
 - There is a **significant language barrier in India**, with a vast population speaking different regional languages.
 - Many digital resources are available only in English or Hindi, **making it difficult for people who speak other languages to access them.**
- **Lack of Assistive Technologies**
 - Many people with disabilities in India **do not have access to the necessary assistive technologies to access digital content.**
 - The cost of these devices is often prohibitive, and there is also a lack of awareness about their availability and benefits.

Why the Entertainment Industry Finds Media Accessibility a Difficult Task

- **Only for a Small Minority:** The entertainment industry says that media accessibility is **only for the benefit of a small minority of hearing and visually impaired viewers** but detracts from the experience of the overwhelming majority.
- **Complicated and Costly:** Secondly, they argue that making films accessible on all the devices and platforms where content is consumed is **complicated and costly.**

Why Arguments of the Entertainment Industry Are Flawed

- **Arguments Are Against Existing Global Evidence**
 - Saying that media accessibility only serves DHH and visually impaired people is wrong.
 - There is **compelling global evidence that media accessibility features are useful for all**, including the hearing and the sighted, however in different ways.
 - The **Billion Readers (BIRD)** initiative has shown that **features like Same Language Subtitles or Captions (SLS/SLC) will advance the reading literacy and language skills of a billion TV viewers.**
 - Hearing viewers often use SLS in noisy environments, most homes, for improved media access.
- **The Industry Seems Unaware of the Demand for SLS**
 - Surveys in rural government schools in several states have found that **almost all children, parents and teachers prefer and want entertainment content with SLS.**
 - The industry may not have fully grasped the demand for SLS on video-based entertainment among India's majority low-income viewers.
 - Children, youth, and adults instantly **see its value for enhancing their own reading, language skills and education.**
- **Not As Complicated, or Costly as the Industry Claims**

- Achieving media accessibility across the entertainment system is **not as complicated, or costly as the industry claims, if they adopt a systems approach.**
- The entertainment industry encompasses the creation, distribution, and consumption of content in more than 23 Indian languages.
- **The core idea in a systems perspective is that accessibility features should become an integral part of all content.** For instance, **video includes separate files for the visuals and the audio.**
- Surveys have **suggested the inclusion of accessibility features as separate files in the Digital Content Package (DCP).**
- This is most cost-effectively achieved across platforms, channels, and devices.

Advantages of Media Accessibility

- The prime advantage of media accessibility to content is that **any stakeholder can turn the accessibility features on or off at practically no cost.**
- **For Deaf**
 - Audiences who are deaf or hard of hearing **can benefit from captioning and descriptive text.**
 - **They may be able to follow the dialogue by reading the captions,** as well as reading key auditory events (e.g., “a door is slammed shut”) that are included as part of the captions.
- **Individuals with Low Vision, Blindness and/or Visual Disability**
 - People with low vision or blindness will have none or limited access to visual information and thus **benefit from audio descriptions of visual elements.**
 - For those with colour blindness, **described video can help highlight key details that may otherwise be missed by the user because the image was colour coded or symbolized in colour on the screen.**
- **Physical Disabilities**
 - Students with varying types of physical disabilities may have difficulty controlling accessible media (e.g., opening a video file, playing, and pausing the video), even if the media itself is accessible in other ways, when viewed.
 - **Media players that can be controlled in various ways** (e.g., the play/pause key selected using the keyboard or via switch access) **make the control of media more accessible.**

Way Forward

- **Ministry of Information and Broadcasting Should Set Standards**
 - MIB has oversight over all entertainment content, therefore, it **would simply need to set guidelines and standards for content creation.**
 - **For instance,** the Central Board of Film Certification (CBFC) can require SLS/SLC and Audio-Description (AD) files to be deposited with CBFC, after a film has been certified.
 - For the life of the film thereafter, **the accessibility features can readily be turned on/off by any distribution channel, consumer, or device.**
 - **India's disability rights groups are asking for four accessibility features** to be included as separate files in any digital film package: **SLC (SLS implied), AD, translated**

English captions/subtitles and ISL video interpretation for picture-in-picture display.

- Media accessibility becomes a default and choice in any content distribution and consumption scenario.
- The first two accessibility features are critical. **If MIB and CBFC simply require that SLS/SLC and AD files are deposited for every film, it will nudge the entire entertainment system to honour media accessibility.**

● Cinema Halls Can Schedule Special Shows

- Cinema halls can schedule and announce special shows with SLS/SLC or AD.
- The deaf and blind then have the option of enjoying an immersive theatre experience.

Conclusion

- According to WHO **among those older than 60 years, over 25 per cent are affected by disabling hearing loss.**
- Accessible media has numerous benefits for a wide range of individuals. **Right now, and in the future, all 1.4 billion Indians will benefit from media accessibility.**

Milan Exercise

The Mid Planning Conference (MPC) of MILAN 24 Exercise is to be hosted by the Indian Navy at Visakhapatnam from 19 - 27 February 2024.

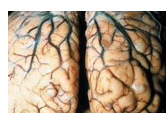
About the Milan Exercise:

- MILAN is a **biennial multilateral naval exercise.**
- It was inceptioned **by the Indian Navy in 1995.**
- Originally conceived in consonance with India's 'Look East Policy, MILAN expanded in ensuing years with the Government of India's 'Act East Policy' and **Security And Growth for All in the Region (SAGAR) initiative** to include participation from other Friendly Foreign Countries (FFCs).
- The harbour phase of MILAN 24 will comprise an International Maritime Seminar, City Parade at RK Beach, Swavlamban Exhibition, Subject Matter Expert Exchange, and Milan of Young Officers. Ships, Maritime patrol aircraft, and submarines of Friendly Foreign Countries would participate in the sea phase along with Indian Navy units.
- They will involve large-force manoeuvres, advanced air defence operations, Anti-submarine warfare, and Anti-surface warfare operations.
- MILAN 22 was conducted at/ off Visakhapatnam from February 25 Feb - 04 Mar 22 and witnessed participation from 39 countries.

Source : [pib MID-PLANNING CONFERENCE FOR MULTILATERAL NAVAL EXERCISE \(MILAN\) - 24](#) [Defence & Security](#)

Neurocysticercosis

Recently, health experts shared information related to neurocysticercosis.



About Neurocysticercosis:

- It is a **parasitic infection** of the central nervous system and is **caused by the pork tapeworm, Taenia solium**.
- Humans become infected after consuming **undercooked food**, particularly pork, or water contaminated with tapeworm eggs, or through poor hygiene practices.
- Taeniasis is the intestinal infection of the adult tapeworm.
- When left untreated, a more serious condition known as cysticercosis develops as T. solium larvae invade body tissues.
- When larvae build up in the central nervous system, muscles, skin, and eyes, it leads to neurocysticercosis.
- It is the most severe form of the disease and a common cause of seizures worldwide.
- **Symptoms**
 - Most often, neurocysticercosis in other areas or organs of the body may remain asymptomatic.
 - But when the condition affects the brain, it causes severe symptoms like **seizures or epilepsy**.
- **Treatment:** It is mainly treated symptomatically and by management of seizures by anticonvulsants.

Source :ht [Neurocysticercosis: Causes, symptoms, treatment and prevention tips](#) **Science & Tech**

Snow crabs

From 2018 to 2021, an estimated 10 billion snow crabs disappeared from the eastern Bering Sea off the coast of Alaska, with the population plummeting to record lows in 2021.



About snow crabs:

- The snow crab is named after the climate where it lives: the coldest parts of the **North Atlantic Sea and the Northern Pacific Ocean**, where the water temperature is always below 4°C.
- **Appearance:** On top they are brownish in color and underneath they are lighter. Their eyes are green or greenish blue.
- Males and females can be distinguished by the shape of their abdominal flaps. On males this flap is triangular, and on females it is broadly rounded.
- **Distribution:** These are found off the coast of Alaska in the Bering, Beaufort, and Chukchi Seas.
- **Habitat:** Usually, cold, arctic water makes ideal habitat for snow crabs (*Chionoecetes opilio*).

Key points about the Bering Sea

- It is bordered by the **US state of Alaska to the east and northeast, the Kamchatka Peninsula** and the **Far Eastern region of Russia** to the west, and the chain of the Aleutian Islands in the south.
- It is connected with the **Chukchi Sea of the Arctic Ocean** via the **Bering Strait** in the north.
- The Bering Sea can be divided into two equal portions: a shallow area along the continental shelf in the northern and eastern parts of the sea, and a deeper area in its southwestern part.
- This deeper portion of the sea is divided by ridges into three basins, namely the Aleutian Basin, the Bowers Basin, and the Komandor Basin.
- The deepest point of the Bering Sea is located in the Bowers Basin at a depth of 4,097 m.

- The two rivers which drain into the sea are the **Anadyr and the Yukon River**.

Source :wio [Here's why billions of crabs disappeared from ocean around Alaska](#) **Environment**

Yard 12706 (IMPHAL)

Recently, Mazagon Dock Shipbuilders Limited (MDL) delivered the third Stealth Destroyer of Project 15B Class Guided Missile Destroyer, i.e., Yard 12706 (IMPHAL), to the Indian Navy.

About Yard 12706 (IMPHAL):

- The ship is **constructed using Indigenous Steel DMR 249A** and is among the largest Destroyers constructed in India, with an overall length of 164 metres and a **displacement of over 7500 tonnes**.
- The ship is propelled by a powerful **Combined Gas and Gas Propulsion Plant (COGAG)**, consisting of four reversible Gas Turbines, which enables her to achieve a **speed of over 30 knots (approx 55 Kmph)**.
- The ship is a potent platform capable of undertaking a variety of tasks and missions, spanning the full spectrum of maritime warfare.
 - It is armed with **supersonic Surface-to-Surface 'Brahmos' missiles** and 'Barak-8' Medium Range Surface to Air Missiles.
 - Towards undersea warfare capability the Destroyer is fitted with indigenously developed anti-submarine weapons and sensors, prominently the Hull mounted Sonar Humsa NG, Heavy weight Torpedo Tube Launchers and ASW Rocket Launchers.
- It is more versatile than the previous classes of Destroyer and Frigates in Naval inventory.
- It has all-round capability against enemy submarines, surface warships, anti-ship missiles and fighter aircraft will enable it to operate independently without supporting vessels, and also to function as the flagship of a Naval task force.

Key points about Project 15B

- **Project 15B (P15B) / Visakhapatnam-class** is the latest destroyer design currently under construction for the Indian Navy.
- These ships have been designed indigenously by the **Indian Navy's Directorate of Naval Design, New Delhi**.
- Each ship spans 163 meters in length and 17.4 meters in beam and displaces 7,300 tonnes.
- These ships will be propelled by four gas turbines to achieve speed in excess of 30 knots.
- According to the Indian Navy, the P15B destroyers incorporate new design concepts for improved survivability, seakeeping, stealth, and maneuverability.

Source :pib [IMPHAL' - Third Stealth Destroyer of Project 15B delivered to the Indian Navy](#) **Defence & Security**

United Nations World Tourism Organisation (UNWTO)

Recently, the Prime Minister of India hailed the Dhordo village in Kutch district of Gujarat for being awarded as the Best Tourism Village by the United Nations World Tourism Organisation (UNWTO).

About the United Nations World Tourism Organization (UNWTO):

- It is the **United Nations agency** responsible for the promotion of responsible, sustainable, and universally accessible tourism.
- **Functions:** It serves as a global forum for tourism policy issues and encourages the implementation of the Global Code of Ethics for Tourism.
- It was established in 1975.
- **Members:** Membership of the UNWTO includes **159 countries**.
- **Official languages:** The official languages of UNWTO are **Arabic, Chinese, English, French, Russian and Spanish**.
- **Organisation structure:**
 - **General Assembly:** It is the principal gathering of the World Tourism Organization. It is composed of full members and associate members. It meets **every two years**.
 - **Executive Council:** It is UNWTO's governing board. It is composed of 35 members elected by the General Assembly in a ratio of one for every five full members. It meets at least twice a year.
- **Headquarter:** Madrid, Spain

Key facts about Best Tourism Villages initiative

- It was launched in 2021 by UNWTO.
- It is part of the **UNWTO Tourism for Rural Development Programme**.
- The programme works to foster development and inclusion in rural areas, combat depopulation, advance innovation and value chain integration through tourism and encourage sustainable practises.

Source : [pib PM hails Gujarat's Dhordo for being awarded as Best Tourism Village by UNWTO](#) **International**

Bombay Stock Exchange (BSE)

The Bombay Stock Exchange (BSE) recently increased the transaction charges on the equity derivatives segment.

About the Bombay Stock Exchange (BSE):

- It is the **oldest and largest stock exchange** in India.
- It was **established in 1875** as the **Native Share and Stock Brokers' Association**.
- **In 1957**, the **Indian Government gave recognition to the BSE** under the Securities Contracts Regulations Act.
- It is **located on Dalal Street, Mumbai**, and lists over **6000 companies**.
- BSE boasts a **variety of trading options in equity, fiat, debt instruments, derivatives, and mutual funds**.
- In addition, it offers multiple trading **services like clearing, settlement, risk management, and investor awareness**.
- **How does the BSE work?**
 - The BSE **employs** an advanced, electronically managed **trading portal to facilitate financial trades**.
 - The exchange **allows shareholders to place orders online** without requiring external help from industry experts.
 - This process is possible through the **direct BSE market access offered by the portal**.
 - Investors can trade on the BSE share market **via a brokerage firm** For this, they **need to pay a pre-determined price to the broker**.

- The **direct investment option is only for** a section of **investors with bulky BSE transactions to their credit**.
- The BSE stock exchange **has the Bombay Online Trading Platform (BOLT)** to ensure a safe trading experience.
- The BSE Sensex stocks **follow a T+2 transaction settlement scheme** which implies that **each transaction on the exchange takes two days to complete processing**.
- BSE market **complies with the regulatory guidelines imposed by SEBI** to ensure investors' safety and capital market efficiency.

What is Sensex?

- Sensex is the **benchmark index of the BSE**.
- It was **launched on January 1, 1986**, as a **basket of 30 stocks** representing the country's **largest, financially-sound companies** listed on the BSE.
- The term 'Sensex' is a blend of words 'Sensitive' and 'Index' and was **coined by stock market expert Deepak Mohini**.
- The Sensex **reflects the movements in the Indian stock market**. It is considered the benchmark index of the Indian stock market.
- **How is the Sensex calculated?**
 - It was calculated **based on the market capitalisation**, or "Full Market Capitalisation", **when it was launched but shifted to a "Free-float Market Capitalisation" methodology from September 1, 2003**.
 - **Free-float is the proportion of total shares** issued by the company that is **readily available for trading to the general public**. It **does not take into account promoters' holdings, government holdings**, and other shares that will not be available in the market for trading in the ordinary course of events.

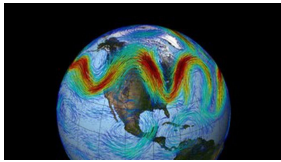
What are Derivatives?

- A derivative is a **contract between two parties** which **derives its value/price from an underlying asset**.
- The commonly used **assets are stocks, bonds, currencies, commodities and market indices**.
- These instruments **allow investors and traders to speculate on the price movements of the underlying asset without owning it directly**.
- The **value of the underlying assets keeps changing** according to market conditions. The **basic principle** behind entering into derivative contracts **is to earn profits by speculating on the value of the underlying asset in future**.
- Derivatives serve various **purposes, including hedging against risks, providing leverage**, and facilitating price discovery.

Source : [cnbc BSE increases transaction charges on the derivative segment from November 1](#) **Economy**

What are Jet Streams?

The James Webb Telescope recently unveiled a stunning image of Jupiter, featuring snapshots of extraordinarily fast jet streams racing across the planet's equator.



About Jet Streams:

- Jet streams are **bands of strong wind** that generally **blow from west to east** across the globe.
- Earth has **four primary jet streams**: **two polar jet streams**, near the north and south poles, and **two subtropical jet streams** closer to the equator.
- They **impact weather, air travel**, and many other things that take place in our atmosphere.
- **What causes Jet Streams?**
 - Jet streams **form when warm air masses meet cold air masses** in the atmosphere.
 - The **Sun doesn't heat the whole earth evenly**. That's why areas near the **equator are hot** and areas near the **poles are cold**.
 - So when Earth's **warmer air masses meet cooler air masses**, the **warmer air rises up** higher in the atmosphere while **cooler air sinks down** to replace the warm air.
 - This movement **creates an air current, or wind**.
 - A **jet stream is a type of air current that forms high in the atmosphere**.
- They are **located about five to nine miles above** Earth's surface in the **mid to upper troposphere**, the layer of Earth's atmosphere where we live and breathe.
- **Speed:**
 - **On average**, jet streams move at about **110 miles per hour**.
 - But **dramatic temperature differences** between the warm and cool air masses **can cause jet streams to move at much higher speeds - 250 miles per hour or faster**.
 - Since these hot and cold air boundaries are **most pronounced in winter**, jet streams are the **strongest during both the northern and southern hemisphere winters**.
- **How do Jet Streams Affect Weather?**
 - They play a crucial role in **shaping weather patterns**. They can **affect the movement of weather systems**, such as **high-pressure and low-pressure areas**, and **influence the direction and intensity of storms**.
 - **Storms tend to follow the edge of the jet stream**, where the difference between cool and warm air creates the turbulent conditions for storms.
- **How do Jet Streams Affect Air Travel?**
 - **Airplanes also fly in the mid to upper So**, if an airplane flies in a **powerful jet stream** and they are traveling in the **same direction**, the airplane can **get a boost**.
 - That's why an airplane flying a route from west to east can **generally make the trip faster** than an airplane traveling the same route from east to west.

Source :toi [Jet streams discovered on Jupiter that are as fast as 'category 5' storms on Earth](#) [Geography](#)

What is Withholding Tax?

The Supreme Court (SC) recently held that without an express notification, the companies cannot, automatically, claim lower

withholding tax of 5%, even if provided for in the Direct Tax Avoidance Agreement (DTAA).

About Withholding Tax:

- Withholding tax is **withheld or deducted from certain types of income**, such as wages, dividends, interest, and royalties, **when they are paid to the recipient (non-resident individual)**.
- It is also **known as Retention tax**.
- The purpose of withholding tax in India is to **ensure that the government receives a portion of the income tax** owed by the recipient.
- Withholding tax is **applicable in the case of payments made to non-resident individuals**.
- **If the income is paid in India**, the person responsible for payments to NRI **must deduct the withholding tax at the time of payment** or when the amount is credited to the NRI's account, **according to Section 195 of the Income Tax Act**.
- **The amount of withholding tax in India depends on the type of income**, the **amount of income earned**, and the **tax laws of the country where the income is earned**.
- The **tax rate** is decided **as prescribed in the Income Tax Act, 1961, or Double Taxation Avoidance Agreement (DTAA), whichever is lower**.
- The **central government of India collects this tax**.
- India has **signed DTAA's with many countries to avoid taxing individuals twice** for the same income (in India and the partner country). Currently, India has DTAA treaties with more than 80 countries around the world.
- **How to determine tax liability for withholding tax?**
 - To calculate tax liability, it is **important to know the residential status** of any person: "Resident Indian" and "Non-Resident Indian".
 - An individual is **considered to be a resident in India for tax purposes** if he or she satisfies any of the following conditions:
 - **Stays in India for 182 days or more during the financial year, or**
 - **Stays in India for 60 days or more during the financial year and for 365 days or more during the 4 years immediately preceding the financial year.**
 - If an individual **does not meet either of these conditions**, he or she will be **considered a non-resident** for tax purposes.
 - **Income earned or received in India:**
 - If an individual is a **resident of India** for tax purposes, he or she **will be taxed on his or her global income, including income earned or received in India and outside India**.
 - If an individual is a **non-resident of India** for tax purposes, he or she **will be taxed only on the income earned or received in India**.
 - **Citizenship or place of birth:**
 - Citizenship or place of birth is **not a determining factor for residential status for tax purposes** in India.
 - An individual **may be a citizen of India or born in India but may still be considered a non-resident** for tax purposes if he or she **does not meet the criteria** outlined above.

Difference between Withholding Tax and TDS?

- **Withholding Tax:** It is the amount that is **deducted in advance**, and the same is **deposited with the government before the amount is paid** to the payer. It is generally **applicable on payments to non – residents**, that are foreign transactions.
- **TDS (Tax Deducted at Source):** A person (**deductor**) who is **required to make a payment** of a specific nature to another person (deductee) **must deduct tax at source** and **send it to the Central Government's** account. It is **applicable on specified transactions under the income tax act, 1961 to both resident and non-resident.**
- Both withholding tax and TDS **serve the same purpose:** to ensure that **taxes are collected at the source** of income. They are used to **ensure tax compliance and prevent tax evasion.**

Source cnbc: [SC clarifies that companies can't claim lower withholding tax under tax treaties without notification](#) **Economy**

Why Special and Local Laws (SLLs) Also Need to be Reformed?

What's in Today's Article? About SLLs (Meaning, Significance, Need for Reforms, etc.)

About Special and Local Laws (SLLs):

- Cognizable crimes are categorized either under the 'Indian Penal Code (IPC)' or under the 'Special and Local Laws (SLL)'.
- The SLL identify criminal activities that the state government frames for specific issues.
- **Special Laws:**
 - A "special law" is a law applicable to a particular subject. Special laws are those that cover specific issues.
 - Examples of these laws include the Excise, Opium, Cattle Trespass, Gambling, and Railway Acts.
- **Local Laws:**
 - A "local law" is a law applicable only to a particular part of India.
 - Laws applicable to a particular locality only are termed local laws, e.g., Port Trust Act.

Significance of SLLs:

- SLLs have immense quantitative and qualitative relevance in the Indian criminal justice system.
- To illustrate, nearly 39.9% of all cognisable offences registered in 2021 were under SLLs.
- As per the Crime in India Statistics of 2021, of the total of nearly 61 lakh cognisable offences registered, 24.3 lakh offences were registered under SLLs alone.
- On the qualitative side, SLLs have given rise to several fundamental and pertinent debates, discourses and discussions regarding the limits on the state's power of criminalisation especially in the context of violation of individual rights and liberties.

Need for Reforming SLLs:

- **Diverse Substantive Issues:**
 - SLLs such as the Unlawful Activities (Prevention) Act, 1967 (UAPA) and the Maharashtra Control of Organised Crime Act, 1999 (MCOCA) suffer from glaringly deficient, ambiguous and vague definitions of offences and terms, raising concerns about the application.

- The Protection of Children from Sexual Offences Act, 2012 is increasingly being criticised for its applicability to consensual sexual activities between minors.
- Concerns have also been raised regarding criminalisation of such conduct through SLLs which would otherwise fall squarely within the domain of civil wrongs or at best, regulatory wrongs.
- For example, the Supreme Court in the case of P. Mohanraj versus M/s Shah Brothers Ispat Ltd. (2021) referred to Section 138 of the Negotiable Instruments Act, 1881 as a 'civil sheep' in a 'criminal wolf's' clothing.
- **Procedural Challenges:**
 - Universally accepted due process values are increasingly being diluted through SLLs.
 - Increased powers of search and seizure under Section 43A of the UAPA and the admissibility of confessions recorded by police officers under Section 18 of the MCOCA are prime examples of the same.
 - The stringent provisions provided for under Section 43(D)(5) of the UAPA, Section 37 of the Narcotic Drugs and Psychotropic Substances Act, 1985 and Section 45 of the Prevention of Money Laundering Act (PMLA) 2002 make the grant of bail a near impossibility.

Conclusion:

- All SLLs which criminalise/seek to criminalise a conduct should find a place as separate chapters within the larger structure of the penal code.
- All SLLs which create a separate procedure for reporting of offences, arrest, investigation, prosecution, trial, evidence and bail must be included either as separate procedures within the CrPC or as exceptions to the general provisions provided therein.
- Non-inclusion of the substantive and procedural aspects of the SLLs in the ongoing reform project is a serious limitation.
- It is imperative therefore that a second generation of reforms be brought in, in order to address the lacunae. **Polity & Governance**

Sahyadri Tiger Reserve (STR)

The National Tiger Conservation Authority (NTCA) recently gave approval to reintroduce eight tigers into the Sahyadri Tiger Reserve (STR) in Maharashtra.

About Sahyadri Tiger Reserve (STR):

- **Location:** It is located in the **Sahyadri Ranges** of the Western Ghats in **Maharashtra**.
- The reserve **spreads over Koyna Wildlife Sanctuary**, forming the northern portion, and **Chandoli National Park**, forming the southern part of the reserve. STR was **created by merging** the areas of **these two forests in 2007**.
- The region of the Sahyadri Tiger Reserve **includes the area around the Koyna Dam, the Warna River**, and many **other small rivers** and streams **originating from the Western Ghats** and flowing to the east.
- **History:**
 - The history of the area dates back to the Maratha Empire, and **many forts built or captured by** the first Maratha Emperor **Shivaji Bhonsle can be found here**.
 - The legendary **temple from which Shivaji received the Bhavani Sword** from divine providence is also said to be **among the many ruins in this region**.

- **Habitat:**
 - The total area of STR is **undulating, with steep escarpments along the western boundary**.
 - The most distinct feature of the Tiger Reserve is the **presence of numerous barren rocky and lateritic plateaus**, locally called “**Sadas**”, with less perennial vegetation and **overhanging cliffs on the edges**, along with numerous fallen boulders with dense thorny bushes.
 - STR is the **only place where climax and near-climax vegetation are plentiful** and prospects of adverse anthropogenic influence in the future are minimal.
- **Flora:**
 - The forest cover here is that of **moist evergreen, semi-evergreen, moist, and dry deciduous vegetation**.
 - There are **many medicinal and fruit-bearing trees** along with the **commercial hard wood trees** in the reserve.
- **Fauna:**
 - The main **carnivores are the tiger, leopard**, and some lesser cats along with the wolf, jackal, and wild dog.
 - The **large herbivores are several deer species** like Barking Deer, Sambar, and other large and **small animals like Indian Bison, Sloth Bear**, Mouse Deer, Giant Indian Squirrel and Macaque.

Source : [toi](#) [Tigers to roar in Sahyadri again, 8 from Chanda to be shifted](#)
[Environment](#)

Canada visa services now available only in Delhi

Why in news?

- Canada has stopped visa and consular services at its [Chandigarh, Mumbai, and Bengaluru consulates](#). These services will now be available only at the Canadian High Commission in New Delhi.
- This has happened after Canada withdrew **41 diplomats** from India after New Delhi said it would revoke their diplomatic immunity.
- Canada has since called for New Delhi to uphold its obligations under the **1961 Vienna Convention on Diplomatic Relations**.
 - India insists that its actions are consistent with the tenets set forth in **Article 11.1 of the Vienna Convention on Diplomatic Relations**.

What's in today's article?

- 1961 Vienna Convention on Diplomatic Relations
- News Summary

1961 Vienna Convention on Diplomatic Relations

- The Vienna Convention on Diplomatic Relations is an international treaty signed by 61 countries in 1961.
- It puts forth a framework for diplomatic interactions between independent nations and aims to ensure the 'development of friendly relations among nations'.
- At present **193 countries** are party to the document.

What is Article 11.1 about?

- Article 11.1 of the convention says that if there is no clear agreement on how big a mission should be, the country hosting the mission can ask that the mission size stays within what they consider reasonable and usual.
- This decision will depend on the situation in the hosting country and the mission's specific needs.

News Summary: Canada visa services now available only in Delhi

- Recently, Canada said it had withdrawn 41 diplomats following an Indian threat to unilaterally revoke their status. This decision is the most recent fallout of the diplomatic dispute between the two countries.
 - The diplomatic dispute was triggered by PM Trudeau's allegation that India may have had a hand in the killing of a Khalistani separatist in Canada this June.

What is the expected fallout of this situation?

- The downsizing of Canada's diplomatic corps and halting of visa and consular services in three major Indian cities will lead to a significant slowdown of Indian visa applications for Canada.
- A very large chunk of these visa applications are from Indian students who seek to study in Canadian universities.

How many Indian students are there in Canada?

- Around two million Canadians, 5% of the overall population, have Indian heritage.
- Canada is the second largest overseas destination for Indian students after the United States.
 - India is by far Canada's largest source of global students, making up for roughly 40% of study permit holders.
- As of December 31, 2022, a total of **319,130 Indian students** comprised **39.5%** of the international student population in Canada.
- Other preferred destinations for Indian students: United Kingdom, Australia, and New Zealand.
- In 2022, India was the top country for permanent residents, temporary foreign workers, and international students in Canada.

Why do so many Indian students seek to study in Canada?

- Apart from the fact that quality education in English is available at many levels and in a wide range of subjects, Canada's government has worked proactively to attract foreign students.
- In 2022, it launched the **Student Direct Stream (SDS)**, a fast-track visa processing programme for students from India, China, Philippines, and Vietnam.
- In April 2023, it announced a **Post-Graduation Work Permit Extension programme, under which international students may stay on for up to three years after graduation**, gaining valuable work experience and potentially a secure job in Canada.

How does having international (including Indian) students help Canada?

- Indian students make a substantial and positive contribution to the Canadian economy:
 - Through tuition fees for colleges and universities, and
 - by spending on living expenses such as food, accommodation, and transportation.
- Tuition fees for international students in Canada are typically **two to three times** what is paid by domestic students.

- Canada is a vast country, the **world's second-largest by area**, with a very small population — less than 4 crore, which is comparable to that of Kerala.
- It is generally welcoming of immigrants, and the Canadian economy benefits from the labour of international students in critical sectors.

International Relations

Drought in Amazon Rainforests | Impact, Causes & Future

Why in News?

- The Amazon rainforest is reeling from an intense drought. Numerous rivers vital for travel have dried up.
- As a result, there is no water, food, or medicine in villages of indigenous communities living in the area.

What's in Today's Article?

- About Amazon Rainforests
- Drought in Amazon Rainforests (Context, Causes, Impact, Future, etc.)

About Amazon Rainforests:

- The Amazon rainforest, also called Amazon jungle or Amazonia, is a **moist broadleaf tropical rainforest** in the Amazon biome that covers most of the Amazon basin of South America.
 - This basin encompasses 70 lakh km² of which 55 lakh km² are covered by the rainforest.
- This region includes territory belonging to nine countries and more than 3300 formally acknowledged indigenous territories.
- The majority of the forest, 60%, is in **Brazil**, followed by **Peru** with 13%, **Colombia** with 10%.

Drought in Amazon Rainforests:

- Eight Brazilian states recorded the lowest rainfall between July 2023 to September 2023 in over 40 years.
- Rainfall is forecast to be below average until the end of the year.
- The latest calamity is becoming another cause for accelerating the destruction of the Amazon, called the **planet's lungs** (storing more than 150 billion metric tonnes of carbon).

Impact of the Drought:

- **Drying of Water Bodies:**
 - The Rio Negro, one of the **world's largest rivers by discharge levels**, has fallen to a record low level of **13.59 metres**.
 - The drought has also affected the **Madeira River**, another vital Amazon tributary, causing Brazil's fourth largest hydroelectric dam, Santo Antonio, to halt its operations due to historically low water levels.
- **Death of Marine Species:**
 - High numbers of fish and river dolphins, known as **Boto**, have been washing up dead due to low water levels.
 - Also, their rotting carcasses have contaminated the water supply in some areas, forcing residents to use it for cooking, bathing, and drinking.
- **State of Emergency:**

- Brazilian authorities fear that about 500,000 people may be affected due to the drought by the end of October.
- **Manaus**, the largest city and capital of Amazonas, the state hit hardest by the drought, declared states of emergency in 55 out of 62 municipalities due to the severe water shortage.

Increase in Wildfires:

- The extreme dry conditions have made the rainforest more vulnerable to wildfires too.
- So far this month, the Amazonas state has witnessed 2,700 blazes — the highest ever noted for the month of October since the records began 25 years ago.
- Smoke from wildfires has plummeted air quality in Manaus, a city of two million in the middle of the Amazon, to hazardous levels.

Causes Behind the Drought:

- Droughts aren't unheard of in the Amazon. Most recently, the rainforest witnessed a dry spell in 2021, which was the worst in at least 90 years.
- The latest drought, however, is probably even more severe as **two simultaneous natural events have hindered cloud formation**, further reducing the already low rainfall levels in the region.
- **Role of El Nino:**
 - El Nino refers to an abnormal warming of surface waters in the equatorial Pacific Ocean.
 - The weather pattern is known to increase the likelihood of breaking temperature records and triggers more extreme heat in many parts of the world and in the ocean.
- **High Water Temperatures in Atlantic Ocean:**
 - The other weather event is the unusually high water temperatures in the northern tropical Atlantic Ocean.
 - Due to warmer ocean waters, heated air rises into the atmosphere, which then reaches the Amazon rainforest.
 - The warm air inhibits the formation of clouds, causing rainfall to drop sharply.

Concerning Studies on the Future of the Amazon Rainforests:

- Over the years, several studies have indicated that with rising global temperatures, the Amazon will experience longer and more frequent droughts.
- A 2022 study, published in the journal Proceedings of the National Academy of Sciences (PNAS), said "if humans continue burning fossil fuels at the current rate, the **rainforest would experience major drought 9 out of every 10 years by the year 2060**".
- Another study, published in the journal Nature in 2022, revealed that the Amazon has become slower at recovering from longer periods of drought over the past 20 years and is nearing its tipping point.
 - Beyond the tipping point, **it would transform from a lush green forest into a drier open savanna**, releasing a large amount of stored carbon, which would, in turn, exacerbate global warming.
- In the past five decades, between 17 and 20 per cent of the Amazon has been destroyed.
- Therefore, **there is an urgent need to curb deforestation and greenhouse gas emissions to protect the Amazon**, and, where possible, reforest the degraded swathes according to experts.

Geography

How MPs ask questions in Lok Sabha

Why in news?

- Trinamool Congress MP Mahua Moitra said she welcomes answering questions from the CBI and the Lok Sabha Ethics Committee pertaining to cash for query allegations against her.
- Earlier, Lok Sabha Speaker had referred the bribe-for-query complaint against MP Mahua Moitra to the Ethics Committee of the Lower House.
- The BJP MP had **accused Mahua Moitra of accepting money from a businessman to ask questions in Parliament**.

What's in today's article? Questions in Lok Sabha

What is the procedure for raising the questions in Lok Sabha?

- **Existing rules**
 - The procedure for raising questions is governed by:
 - Rules 32 to 54 of the "Rules of Procedure and Conduct of Business in Lok Sabha" and
 - Directions 10 to 18 of the "Directions by the Speaker, Lok Sabha".
- **Procedure**
 - To ask a question, an MP has to first give a notice addressed to the lower house's Secretary-General, intimating their intention to ask a question.
 - The notice usually contains:
 - the text of the question,
 - the official designation of the Minister to whom the question is addressed,
 - the date on which the answer is desired, and
 - the order of preference, in case the MP tables more than one notice of questions for the same day.
- **Number of questions a member can ask**
 - A Member is allowed to give not more than five notices of questions, both for oral and written answers, in all, for any day.
 - Notices received in excess of five from a Member for a day, are considered for the subsequent day(s) concerning that Minister(s) during the period of that session only.
 - Usually, the period of notice of a question is not less than 15 days.
- **2 Ways through which MPs can submit the notices of their questions**
 - First, through an **online 'Member's Portal'**, where they have to enter their ID and password to get access.
 - Second, through the printed forms available in the Parliamentary Notice Office.
- **Role of Speaker**
 - After submission of the notices, the next stage is when the Speaker of Lok Sabha examines the notices of the questions in the light of the laid-out rules.
 - It is the Speaker, who decides if a question, or a part thereof, is or isn't admissible.

Conditions for the admissibility of questions

- There are numerous rules that govern the admissibility of a question raised by an MP.
 - For example, questions shall not ordinarily contain more than 150 words.

- They should not contain arguments, defamatory statements, refer to the character or conduct of any person except in their official or public capacity.
- Queries raising larger issues of policy are not allowed, for it is not possible to enunciate policies within the limited compass of an answer to a question.
- A question is not admissible if its subject matter is pending judgment before any court of law or any other tribunal or body set up under law or is under consideration before a Parliamentary Committee.
- A query also cannot seek information on matters which may weaken the unity and integrity of the country.

Different types of questions

- **Starred questions**
 - A starred question is asked by an MP and answered orally by the Minister-in-charge.
 - Each MP is allowed to ask one starred question per day.
 - Starred questions have to be submitted at least 15 days in advance (so that the Minister-in-charge has the time to prepare the answers) and only 20 questions can be listed for oral answers on a day.
 - When a question is answered orally, supplementary questions can be asked thereon.
 - Starred questions are better suited to inquire about the government's views on issues and its policy inclination.
- **Unstarred questions**
 - An unstarred question receives a written reply from the Ministry. These also need to be submitted at least 15 days in advance.
 - Only 230 questions can be listed for written answers in a day.
 - Unlike starred questions, unstarred questions do not permit any follow-up questions.
 - Unstarred questions are more conducive for getting answers to queries related to data or information
- **Short-notice questions**
 - Short notice questions are ones pertaining to a matter of urgent public importance.
 - They can be asked with less than 10 days' notice, with reasons for the short notice.
 - Like a starred question, they are answered orally, followed by supplementary questions.
- **Questions addressed to private Members**
 - The question to a private Member is addressed to the MP themselves.
 - It is asked when the subject matter pertains to any Bill, Resolution or any matter relating to the Business of the House for which that MP is responsible.

Importance of raising questions

- Asking questions is an inherent and unfettered parliamentary right of an MP.
- The exercise is meant to act as a parliamentary device to practise legislative control over executive actions.
- It can be used to:
 - get information on aspects of administration and government activity,
 - criticise government policies and schemes,
 - throw light on government lapses, and

- push ministers to take substantive steps for the common good.

Polity & Governance

Rau's

Dhordo Village | Page - TH UPSC Syllabus: Current Affairs | GS Prelims

Sub Theme: Current events | UPSC

Dhordo is recognised as a Best Tourism Village

General Studies I #Heritageandculture #Placesinnews #Prelimsnuggets Primary Source: The Hindu

Context: Recently, United Nations World Tourism Organisation has included Dhordo village in the list of 'Best Tourism Village'.

About Dhordo:

- Dhordo, located in the **Banni region within the Rann of Kutch**, stands as a symbol of **Gujarat's** progress and increasing pride.
- The village's **distinctive round houses, known as bhungas**, have gained immense popularity among tourists.
- Dhordo is renowned for **hosting the three-month-long Rann Utsav**, a cultural celebration that highlights the traditional art, music, and crafts of the region.
- **The Best Tourism Village is awarded to villages** that are at the forefront of both nurturing rural areas and preserving the region's landscapes, cultural diversity, and culinary traditions.

About Best Tourism Villages initiative:

- **Introduced in 2021**, the UNWTO's **Best Tourism Villages** initiative is an integral component of the UNWTO Tourism for **Rural Development Programme**.
- This program is dedicated to fostering *development and inclusivity in rural regions, countering depopulation, promoting innovation, enhancing value chain integration through tourism, and advocating sustainable practices.*
- **Villages are assessed across nine essential areas:**
 - Cultural and Natural Resources
 - Promotion and Preservation of Cultural Resources
 - Economic Viability
 - Social Viability
 - Environmental Sustainability
 - Tourism Advancement and Integration of Value Chains
 - Governance and Prioritization of Tourism
 - Infrastructure and Connectivity
 - Health, Safety, and Security
- **Initiative encompasses three key pillars:**
 - **Best Tourism Villages by UNWTO:** Acknowledges exceptional rural tourism destinations featuring *accredited cultural and natural assets*, a dedication to preserving *community-based values*, and a clear commitment to innovation and sustainability across economic, social, and environmental aspects.
 - **Best Tourism Villages by UNWTO Upgrade Programme:** Provides support to villages in their journey towards *meeting recognition criteria*, offering assistance in areas identified as gaps during evaluation.
 - **Best Tourism Villages Network:** Serves as a platform for sharing experiences and best practices, learning opportunities, and engagement with members, welcoming contributions from experts and public and private sector partners involved in the promotion of tourism as a catalyst for rural development.

About UNWTO:

- The United Nations World Tourism Organization (UNWTO) is a **specialized agency of the United Nations** dedicated to promoting responsible, **sustainable, and universally accessible tourism**.
- **Headquarters:** Madrid, Spain.
- It takes the lead in shaping tourism policies and offers support while serving as a global platform for tourism policy discussions and a valuable source of tourism research and knowledge.
- UNWTO encourages the adoption of various initiatives, including the *Global Code of Ethics for Tourism Development*, Competitiveness, Innovation & Digital Transformation, Ethics, Culture & Social Responsibility.
- **Official languages:** Arabic, Chinese, English, French, Russian, and Spanish.

Structure:

- **General Assembly:** It serves as the **primary meeting** of the World Tourism Organization, convening **every two years to endorse the budget and work plan** and to deliberate on significant issues pertaining to the tourism sector. It also elects a **Secretary-General every four years**. The **World Committee on Tourism Ethics** operates as a **subsidiary body of the General Assembly**.
- **Executive Council:** UNWTO's **governing board is the Executive Council**, responsible for ensuring the Organization fulfills its mission and adheres to its financial plan. It convenes at **least twice a year and consists of members chosen by the General Assembly**.
- **Committees:** Specialized committees comprised of UNWTO members provide guidance on management and program content. These include the Committee on Budget and Finance, the Sustainable Development of Tourism Committee, and others.
- **Secretariat:** The Secretariat is responsible for executing UNWTO's work program and meeting the requirements of members and affiliate members. **The Secretary-General leads this group.**

Practice Question for Prelims

Q. Consider the following statements:

1. 'Best Tourism Village', is an initiative launched by the Ministry of Rural Development in cooperation with the Ministry of Tourism.
 2. 'Dhordo', a village in the list of Best Tourism Villages, is situated in the state of Rajasthan.
- Which of the statements given above is/are correct?
(a) 1 only (b) 2 only (c) Both 1 and 2 (d) Neither 1 nor 2
Answer: (d)

China to curb 'Graphite' exports

Context- China has recently announced that it will require export permits for certain graphite products in a bid to protect national security. This decision is seen as China's latest effort to regulate the supply of essential minerals, particularly in light of challenges to its global manufacturing dominance.

Graphite

- Graphite is a naturally occurring form of crystalline carbon. It is a soft, black to grey, lustrous mineral that conducts electricity.

key properties and characteristics of graphite:

- **Allotrope of Carbon:**
 - Graphite is one of the allotropes of carbon, the other well-known allotropes being diamond and amorphous carbon.
 - While diamond has a tetrahedral structure where each carbon atom is bonded to four other carbon atoms, graphite has a planar hexagonal structure.
- **Structure:**
 - In graphite, each carbon atom is bonded to three other carbon atoms in a flat, 2-dimensional plane that resembles a honeycomb lattice.
 - These planes are stacked on top of each other, and the weak van der Waals forces between the planes allow them to slide over each other easily. This gives graphite its slippery feel and makes it useful as a lubricant.
- **Conductivity:**
 - Graphite is a good conductor of electricity due to the presence of free electrons in its structure.
 - This property is utilized in various applications, such as in the manufacture of electrodes.
- **Occurrence:**
 - Graphite is found in metamorphic and igneous rocks and can be mined from natural deposits. It can also be produced synthetically.
- **Hardness:**
 - On the Mohs scale of mineral hardness, graphite is relatively soft, with a hardness of 1-2.
- **Thermal Stability:**
 - Graphite has a high melting point and is stable at high temperatures, making it suitable for high-temperature applications.

Type of Natural Graphite

Type of Graphite	Description	Occurrence & Origin	Notable Characteristics	Major Uses
Flake Graphite	Most common form of natural graphite.	Found in metamorphic rocks, often associated with siliceous rocks.	High crystallinity, shiny appearance.	Various, based on flake size.
	Occurs as isolated, flat, plate-like particles with hexagonal edges.		Subdivided based on flake size: large, medium, fine.	
Amorphous Graphite	Less crystalline than flake or vein graphite.	Found in beds of weakly metamorphosed rocks, often associated with coal seams.	Still crystalline but with very small crystals.	Many applications, typically less valuable than flake graphite.
	Also known as "cryptocrystalline" or "earth" graphite.		Lower purity and crystallinity than flake graphite.	
Vein (or Lump) Graphite	Rarest form of natural graphite.	Occurs in veins, believed to be from deposition of hydrothermal fluids. Only a few locations, e.g., Sri Lanka.	Very high purity (often >90% without processing).	High-end applications.

Applications of Graphite

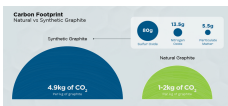
- **Lubrication:** Effective in high-temperature and high-pressure conditions.
- **Electrodes:** Used in batteries, fuel cells, and arc furnaces due to its electrical conductivity.
- **Pencil Leads:** Graphite mixed with clay forms pencil "lead."
- **Refractory Materials:** Utilized in high-temperature applications like furnaces.
- **Carbon Brushes:** Transfer electrical current in motors and generators.
- **Graphene Production:** Processed from graphite, graphene has various potential applications.
- **Nuclear Reactors:** Serves as a neutron moderator.
- **Gasket and Sealing Material:** Withstands high temperatures and corrosive chemicals.
- **Brake Linings:** Used in vehicles for its heat dissipation properties.
- **Foundry Facing:** Provides protective coating on molds and cores.
- **Peek Composites:** Graphite fibers reinforce peek composites for structural applications.
- **Additive Manufacturing:** Used in 3D printing due to its thermal and electrical conductivity.

Synthetic Graphite Vs Natural Graphite

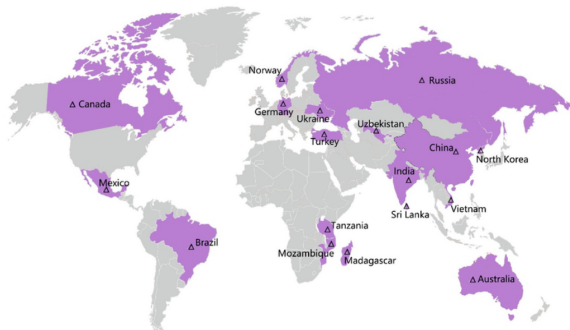
Property/Aspect	Synthetic Graphite	Natural Graphite
Origin	Artificially produced (typically from petroleum coke and pitch cokes).	Mined from the earth (naturally occurring form of crystalline carbon).
Purity	Very high (often 99% or more carbon) due to controlled production.	Varies; requires more processing to achieve high purity levels.
Structure & Properties	Uniform structure and consistent properties. Particle size, shape, and distribution can be controlled.	Varies based on type (flake, amorphous, vein) and source.
Cost	Generally more expensive (energy-intensive production).	Typically less expensive, but varies based on quality and source.
Applications	Electrodes for electric arc furnaces, lithium-ion batteries, aerospace, nuclear applications.	Pencils, lubricants, brake linings, lithium-ion batteries, nuclear reactors.
Environmental Impact	Energy-intensive production; relies on non-renewable resources.	Mining impacts; potentially lower carbon footprint than synthetic graphite.

Impact		
Supply Chain	More controlled (industrial production).	Influenced by geopolitical factors, mining regulations, availability of deposits.

Carbon footprint of Graphite



Global status of Graphite producing countries

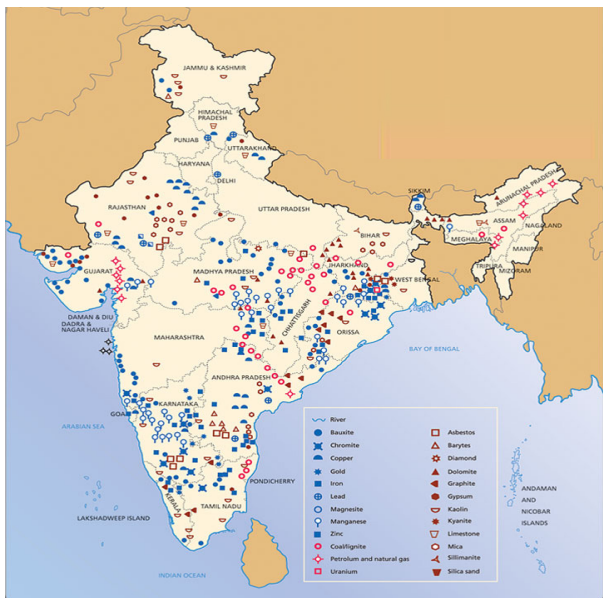


The global distribution of graphite is somewhat concentrated, with certain countries playing significant roles in its production and reserve holdings:

- Production:**
 - China is the leading producer of graphite, accounting for about 67% of the global supplies of natural graphite.
 - China's dominance in graphite production was noted, with 65.5% of the total global production of graphite located in this country.
 - Other countries contributing to increased graphite production include Mozambique, Madagascar, and Brazil, especially with the commencement of the Montepuez Central Graphite project.
- Reserves:**
 - Turkey held the largest reserves of natural graphite, with approximately 90 million metric tons.
 - 27.3% of the global reserves of graphite were located in Turkey, followed by Brazil with the second-largest global graphite reserves.

Graphite in India

- Graphite Reserves Distribution:**
 - Arunachal Pradesh:** Holds the largest share of graphite reserves in India, with about 43% of the total graphite found in the country.
 - Jammu and Kashmir:** Follows with a significant portion of graphite reserves, accounting for about 37% of the country's total.
 - Other states with notable graphite reserves include Jharkhand (6%), Tamil Nadu (5%), and Odisha (3%).
- Graphite Production Concentration:**
 - Tamil Nadu (37%), Jharkhand (30%), and Odisha (29%) are the states where most of the graphite production is concentrated.
- Active Mining Centers:**
 - Jharkhand:** Notable districts for graphite mining include Latehar & Palamu.
 - Odisha:** Graphite mining is active in Bargarh, Nuapada, Rayagada & Balangir districts.
 - Tamil Nadu:** The districts of Madurai & Sivagangai are known for graphite mining.



Implications of China ban on Graphite

- Increased Prices:**
 - With China being a major supplier of graphite, a ban on exports could lead to a shortage in supply, thereby driving up prices globally.
 - This could make graphite and graphite-based products more expensive in India.
- Battery and Electric Vehicle (EV) Industry:**

- India's burgeoning EV industry could face challenges due to the higher costs and potential scarcity of graphite, which is a key component in lithium-ion batteries.
- Sourcing Challenges:**
 - Indian industries reliant on graphite may need to seek alternative sources or invest in domestic production to meet their needs, which could involve additional costs and time.
- Potential for Domestic Production:**
 - On a positive note, this situation might provide an impetus for India to develop its own graphite mining and processing industry further, leveraging its domestic reserves of graphite.
- Trade Dynamics:**
 - The export controls could also affect trade dynamics between India and China, potentially prompting discussions on trade agreements or policies to ensure the availability of critical materials.

Practice MCQ

Q. Consider the following statements about Graphite production in India:

- India is one of the top five producers of graphite in the world.
- The majority of India's graphite production comes from the state of Arunachal Pradesh.
- Graphite is primarily used in the production of steel and lubricants.
- Flake graphite is the most abundant form of natural graphite found in India.

Which of the statements given above is/are correct?

- (a) 1 and 3 only (b) 2 and 4 only (c) 1, 3, and 4 only (d) 1, 2, 3, and 4

Ans: (C)

4. UPSC Current Affairs: Fast Radio Burst| Page - IE
UPSC Syllabus: Science & Technology| GS Prelims
Sub Theme: Current events| UPSC

Fast radio bursts

Context: Researchers have discovered a **remote blast of cosmic radio waves** that lasted less than a millisecond. This “fast radio burst” is the most distant ever detected and its source is in a galaxy that took eight billion years to reach Earth. It is also one of the most energetic ones ever observed. In a fraction of a second, it released the **equivalent of 30 years of emissions** from our Sun.

Practise Question:

Q. Consider the following statements:

- Fast radio bursts are the dense remnants of supermassive stars that have exploded as supernovae.
- Magnetars are the most powerful known magnetic objects in the Universe.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

Answer: (b)

Explanation:

- Statement 1 is incorrect:** Fast radio bursts are **sudden releases of powerful radio waves** that last just milliseconds. In that short time, they **discharge as much energy as 500 million Suns**. The origin of FRBs is still mysterious. However, one leading theory is that they are caused by magnetars.
- Statement 2 is correct: Magnetars** are types of neutron stars that have much more powerful magnetic fields than normal neutron stars. They are the **most powerful known magnetic objects** in the Universe.
(Neutron stars are the incredibly dense remnants of supermassive stars that have exploded as supernovae.)

UPSC PYQ 2023

Consider the following pairs:

Objects in space	Description
1. Cepheids:	Giant clouds of dust and gas in space
2. Nebulae:	Stars which brighten and dim periodically
3. Pulsars:	Neutron stars that are formed when massive stars run out of fuel and collapse

How many of the above pairs are correctly matched?

- (a) Only one
(b) Only two
(c) All three
(d) None

Answer: (a)

5. UPSC Current Affairs: Firecracker Industry| Page - TH UPSC Syllabus: Disaster Management | GS Prelims Sub Theme: Current events|

UPSC Firecracker industry-Sparks of danger

Context: - The firecracker industry, which was concentrated in Sivakasi, is much more dispersed in Tamil Nadu now with small units, both legal and illegal, coming up across districts. Many of these units' function with little supervision, monitoring, or official inspections, which has led to a spate of tragedies in recent months.

About PESO (The Petroleum and Explosive Safety Organization)

- The Petroleum and Explosives Safety Organization (PESO), formerly known as Department of Explosives, since its **inception on 05/09/1998**, has been serving the nation as a **nodal agency** for regulating safety of hazardous substances such as **explosives, compressed gases, and petroleum**.
- PESO's major work is to administer the responsibilities delegated under the **Explosives Act 1884 and Petroleum Act 1934** and the Rules made there under the motto "**Safety First.**"
- It is licensing and regulating authority for large fireworks units.
- PESO has its **Headquarters at Nagpur** in Maharashtra and serves through nine Circle Offices viz Agra, Bhopal, Chennai, Faridabad, Guwahati, Hyderabad, Kolkata, Mumbai, Vadodara, and their subordinate Sub-Circle offices across the country.
- It works under the **Department for Promotion of Industry and Internal Trade** under the **Ministry of Commerce and Industry**.

Practice Question

With reference to the Petroleum and Explosive Safety Organization (PESO), consider the following statements.

- It is a post-independence body, to regulate explosives, compressed gases, and petroleum.
- It works under the Ministry of Petroleum and natural gas.
- It has its headquarters in Nagpur.

How many of the above statements are correct?

- (A) Only one
(B) Only two
(C) ALL three
(D) None

Answer-A

Statement 1 is incorrect: - Peso is formed in 1898 and formally known as Department of Explosives.

Statement 2 is incorrect: - It works under the Department for Promotion of industry and internal trade, Ministry of Commerce, and Industry.
Statement 3 is correct.

6. UPSC Current Affairs: **Manual Scavenging** | Page - TH
UPSC Syllabus: Social Issues | GS-II Sub Theme: Vulnerable Section | UPSC

- Manual scavenging is the practice of **manually cleaning**, carrying, disposing or handling in any manner, **human excreta from dry latrines and sewers**.
- It is usually done with hands using the most basic tools like buckets, brooms and baskets.
- The practice of manual scavenging is the worst surviving symbol of **caste untouchability** in our country, as only the so-called lower caste are expected to this job.
- Manual scavengers are one of the **poorest, marginalised and disadvantaged** communities in India.
- Many scavengers lose their lives — either due to **toxic fumes or by accident**, in the sewers.
- Manual scavenging is still a reality in the Capital, as a recent survey by Delhi government recorded 32 people as manual scavengers, despite municipal corporation reports claiming that capital no longer employs them.
- The Union Social Justice and Empowerment Ministry has begun a fresh survey to count and identify manual scavengers.
- According to data by Ministry of Social Justice, there is increase in the number of deaths during cleaning sewers and septic tanks from 68 in 2018 to 110 in 2019.

National Survey of Manual Scavengers is being conducted.

- Though the survey was to be undertaken in 170 districts of 18 states, only 121 districts in 12 states have been covered yet— Bihar, J&K, Jharkhand, Karnataka, Telangana and West Bengal are yet to participate in the survey.
- The **maximum number of manual scavengers** — 28,796 — have been registered in **Uttar Pradesh**.
- States such as Maharashtra, Madhya Pradesh, Rajasthan and Uttarakhand, which had earlier reported zero or about 100, have now upped their count.
- The survey by Delhi government records 32 people employed as manual scavengers though the number is likely to be high.
- 282 people have died while cleaning sewers and septic tanks in the country between 2016 and November 2019, the Ministry of Social Justice and Empowerment said in a response to a question in Rajya Sabha.
- Sanitation is a State subject, the people for cleaning of sewers and septic tanks are employed by local bodies.
- States and Union Territories have been requested to ensure filing of FIRs and prosecution in all cases of employment of persons for hazardous cleaning of sewers as per the provisions of The Prohibition of Employment as Manual Scavengers and their Rehabilitation Act 2013,

Legal Provisions

- The Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993, **banned the employment** of people as manual scavengers for manually cleaning **dry latrines** and also the construction of dry toilets.
- In 2013, Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, was enacted which reinforced this ban by **prohibiting manual scavenging in all forms** and ensures the **rehabilitation of manual scavengers**.
- In 2014, another directives were issued by the government which expanded the rehabilitation provisions.

Law on Manual Scavenging

- Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013** provides for the prohibition of employment as manual scavengers, rehabilitation of manual scavengers and their families.
- Section 7** of the Act prohibits any person, local authority or any agency to engage or employ people for hazardous cleaning of sewers and septic tanks. Violation of the provision provides for imprisonment which may extend to two years.
- Section 13** of the Act provides for **rehabilitation of persons** identified as manual scavengers by a Municipality.
- However, the law is not properly enforced and people are forced to do manual scavenging.

Ignoring worker's safety norms

- The requirements of worker safety and provision of safety norms in cases of human intervention are often ignored leading to death of persons involved in such cases of manual scavenging.
- In the absence of political will and social pressure, more lives could be lost as more tanks are being built in rural and urban areas as part of the drive to construct toilets.
- Based on **Article 17** to abolish the practice of untouchability against Scheduled Castes/Dalits, government enacted **The Protection of Civil Rights (PCR) Act, 1955**.
- It punishes the preaching and practice of Untouchability and enforcement of any disability against any member of the society.

The Scheduled Castes & Scheduled Tribes (Prevention of Atrocities) Act, 1989

- Now, the PCR Act covered offences of untouchability, but not of atrocities against members of Scheduled Castes (SCs) and the Scheduled Tribes (STs).
- So, the government enacted **Prevention of Atrocities Act** to prevent commission of offences against members of Scheduled Castes and Scheduled Tribes and also to provide relief and rehabilitation of victims of such offences.
- The Act punishes anyone who compels or employs a member of Scheduled Caste or Scheduled Tribe to carry human or animal carcasses or for manual scavenging. Further, the Act post amendment also established **Special Courts** and **Exclusive Special Courts** for trial of offences punishable under the Act.

Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993

- The act prohibits the employment of manual scavengers, manual cleaning of sewers and septic tanks without protective equipment, and the construction of insanitary latrines.
- It seeks to rehabilitate manual scavengers and provide for their alternative employment. Each local authority, cantonment board and railway authority is responsible for surveying insanitary latrines within its jurisdiction.
- They shall also construct a number of sanitary community latrines. It provided for imprisonment of up to a year and a fine. Though the construction of dry latrines has drastically reduced, the number of deaths in manholes, sewers and septic tanks continues to remain high.

National Commission for Safai Karamcharis Act, 1993

- The Act established The National Commission for Safai Karamcharis which had powers to investigate specific grievances and take suo moto notice of matters relating to
 - non-implementation of programmes or schemes in respect of any group of Safai Karamcharis,
 - decisions, guidelines or instructions, aimed at mitigating the hardship of Safai Karamcharis,
 - taking measures for the social and economic upliftment of Safai Karamcharis and
 - recommending Central Government to eliminate inequalities in status, facilities and opportunities for Safai Karamcharis under a time-bound action plan.
- However, the Act lapsed in 2004 and now the **National Commission for Safai Karamcharis** is functioning as a **Non-Statutory body of the Ministry of Social Justice and Empowerment** whose tenure is extended from time to time through Government Resolutions.

Challenges which still remains

- Caste based Occupation** - The practice of manual scavenging in India goes back by a few centuries and its roots lie deep within the caste-based occupation system in India. Dalits, the lowest in the caste hierarchy were and continue to be employed as scavengers. Even within the Dalit community, it is the lowest amongst the sub-castes who undertake scavenging work. Thus, there is a need to completely stop manual scavenging and provide alternative opportunities to people employed in such inhuman activity. Further, the government must create social awareness against caste discrimination specially for people engaged in such activities.
- Number of Deaths remains High** – As per the Houselisting and Housing Census, 2011, there were 7.94 lakh latrines in the country from which night soil was removed by humans. Though the construction of dry latrines has drastically reduced, the number of deaths in manholes, sewers and septic tanks continues to remain high.
- Socio-Economic and Caste Census of 2011** - There were 1,80,657 manual scavengers in the rural areas of the country as per the data of manual scavengers released by the Ministry of Rural Development as on 3rd July, 2015.
- Present Data Still Unclear** - However, the exact data on manual scavenging in India as of now in 2020 is still very much unclear and it is because of this, there are number of unidentified manual scavengers in India working under filthy and inhuman conditions. As per NCSK, total of 53,598 people, of which 29,923 were in Uttar Pradesh alone, had been identified as engaged in manual scavenging in 2018.
- Need to Mechanise Sewer Cleaning & take steps for Labour Safety** - The present government had plans to amend the **Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013** to completely mechanise the cleaning of sewers and manholes and build new sewers. But neither the past nor the present amendment addresses the issue of labour safety.
- Swachh Bharat Abhiyan must raise awareness against manual scavenging** – As of 2nd October 2019, under Swachh Bharat Mission (Grameen) SBM(G), all the 6,03,175 villages in the country have declared themselves Open Defecation Free (ODF). The Government has also advised all the States to identify the missed out rural households and provide support to construct toilets under Swachh Bharat Mission (Grameen) SBM(G). However, SBM(G) does not address the issue of labour rights and the stigma attached to sanitation especially for the Scheduled Castes. Thus, there is a need to create social awareness at gram panchayat level not only for ODF but also against the inhuman practice of manual scavenging.

Ethical issues involved

- Lack of human dignity:** dignity is the first and foremost prerequisite to living a respectful life as recognised in article 21 of our constitution. But here in this case human is compelled to pick up human excreta. It is not derogatory only to the victim but is also derogatory to the whole of Indian society.
- Issue of corruption:** The issue of corruption is not only a financial matter but is the root cause of many inhumane practices in a society like here, in this case, corruption is involved in sustaining the inhumane practice of manual scavenging.
- Lack of good governance:** In this case, the manual scavengers are working for the Panchayat administration which is the third tier of governance. There is a law banning manual scavenging on one hand and on the other the branch of the state is practising the same sin.
- Lack of dignified livelihood:** a person can't choose such a derogatory work for livelihood until and unless he is not compelled to do so. In this sense, we can say that state is failed to provide dignified employment opportunities to its subjects.
- Issue of traditional mentality:** here in this both employees and employers are unable to change their traditional mentality of caste-based occupation. Here in this case a Dalit has considered nothing wrong in doing so as he has accepted it as a destiny hierarchical job. While the administration couldn't come out of the traditional psyche of allotting such works to a particular community.
- What should be done**
- Attitudinal change:** it is about the attitude of a person to do or not do a particular job irrespective of poverty for example an upper caste person will never choose to be a manual scavenger even if he is facing extreme poverty. So, it is our collective responsibility to change the attitude of the employee and employer both. Education can play a great role in changing attitudes along with other factors.
- Use of technology:** government should incentivise the development and application of such technologies which can replace humans in sanitation work.
- Implementing the existing law with letter and spirit:** Strict implementation of laws prohibiting manual scavenging is needed, to ensure a dignified life for all of the citizens because the law has a great deterring effect.
- Availing alternative employment opportunities:** if Dalits will have adequate alternative employment opportunities, then no one can force them to do manual scavenging.

Initiatives by the government and way forward

- Though manual scavenging is **banned across India in all its forms and is a non-bailable offence** under the Manual Scavengers Act, 2013, it still exists in our society as grim reminder of our failure.
- A Central Sector Scheme, '**Self Employment Scheme for Rehabilitation of Manual Scavengers**' (SRMS) provides identified manual scavengers and their dependents various rehabilitation benefits like onetime cash assistance of Rs.40000/-, Loans upto Rs. 15.00 lakhs at concessional rate of interest and Skill Development Training.
- Government is also implementing a Scheme titled "Pre-Matric Scholarship scheme to the Children of those engaged in occupations involving cleaning and prone to health hazards". Children of manual scavengers are also eligible for this scholarship.
- Swachh Bharat Mission** of the government aims to eliminate the need for manual scavenging in the first place. Major reason why manual scavengers still exists despite huge strides made in SBM is because most of the **new toilets do not have water supply** and proper sewage systems or safe faecal sludge management practices. Some municipalities in India still run public toilets using simple pit latrines.
- Though manual scavenging has been legally banned but it has continued in the country, as the implementation of law has not been strictly followed.

- Stricter and absolute implementation of the **prohibition** on manual scavenging, **better rehabilitation prospects, improving sewage system and sludge management** practice need to be evolved.

What can be done?

- The law on manual scavenging must be enforced in letter and spirit both by the Centre and State governments.
- No person, agency or authority shall employ people for manual scavenging.
- Local Authorities must find resources to employ machines for cleaning of septic tanks and sewers.
- The **Swachh Bharat Abhiyan** should make expansion of the sewer network a top priority and come up with a scheme for scientific maintenance of tanks as it will also help in ending manual cleaning of septic tanks.
- Two components of Swachh Bharat Abhiyan (SBM) i.e. **SBM-Rural** and **SBM-Urban** must look into the issue of sanitation and use funds available for SBM in providing mechanised way of cleaning septic tanks.
- Mechanised cleaning of sewers and tanks will **reduce inequality** especially for such communities who have been traditionally involved in manual scavenging.

Guidelines Issues by Supreme Court A Supreme Court order in March, 2014, makes it mandatory for the government to identify all those who died in sewerage work since 1993 and provide Rs.10 lakh each as compensation to their families.\

The Government of India has adopted a two-pronged strategy of eliminating insanitary latrines through demolition and conversion into sanitary latrines and developing a comprehensive rehabilitation package for manual scavengers through a survey.

Action Plan for 2020-21 - Rehabilitation of Manual Scavengers: National Action Plan

- The existing measures have not succeeded in elimination of hazardous cleaning of sewers and septic tanks and a more serious, stringent and focused strategy framework is required to be put in place.
- **The cleaning of the sewers and septic tanks** is linked with **developing facilities for transportation, disposal, treatment and utilization of the sullage** and is therefore closely linked with the Municipal administration and Gram Panchayat.
- Accordingly a “**National Action Plan**” is being formulated in consultation with **Ministry of Housing and Urban Affairs** and **Department of Drinking Water and Sanitation** to eliminate manual cleaning of Sewer system & Septic tanks and rehabilitate workers engaged in manual cleaning.
- **National Action Plan for Mechanized Eco System** is a coordinated Action by the above mentioned ministries where in the **Ministry of Social Justice and Empowerment** will act as the **Nodal Ministry** for implementing the same. It would ensure the role of a coordinating Ministry dealing primarily with monitoring, rehabilitation and skilling of sanitation worker engaged in hazardous cleaning.
- The intervention for promotion of mechanized cleaning would be through the ongoing **Swachhata Udyami Yojana**, under which Loan is provided at concessional rate of interest of 4% per annum.

Steps Planned for Manual Scavengers

- Ministry of Social Justice and Empowerment had prepared **The Action Plan** for the next financial year 2020-21 which includes –
 - Onetime cash assistance to the manual scavengers expected to be identified
 - Skill Development Training
 - Capital Subsidy for Self Employment Projects
 - Health-cum-awareness camps
 - Workshop on prevention of hazardous cleaning
 - Behavioural Training (Upskilling programme)
 - Subsidy component of Loans to manual scavengers, sanitation workers involved in hazardous cleaning and their dependents for purchase of small machines for mechanize cleaning of sewers and septic tanks
 - IEC campaign to create awareness about MS Act, 2013 Self Employment Scheme for the Rehabilitation of Manual Scavengers (SRMS) and mechanized cleaning.

Amendments Proposed in MS Act, 2013 under National Action Plan

- Including Septage Treatment plant and such other spaces emitting toxic gases or effluent in the definition of ‘hazardous cleaning’.
- Facilitate survey of septic tanks by the local authorities to facilitate effective supervision over the maintenance of septic tanks.
- Construction of Septic Tanks as per the prescribed specification for mechanized cleaning.
- Include sewage/septage system and any other system emitting toxic gases or effluents.
- Provide more stringent penalties for engaging persons for hazardous cleaning of sewers and septic tanks.
- Compensating families of the persons who die while cleaning sewers and septic tanks.
- Appointment of Responsible Sanitation Authority and inspectors.
- Ensuring Responsibility of local authorities for providing service for mechanised cleaning of sewers/septic tanks.
- State Government to provide financial assistance to local authorities required for mechanised cleaning of sewers and septic tanks.

National Safai Karmcharis Finance & Development Corporation (NSKFDC)

- NSKFDC is a **wholly owned Government of India Undertaking** under the **Ministry of Social Justice & Empowerment**.
- It was set up in January 1997 as a **Company “Not for Profit”** under **Section 25** of the Companies Act, 1956.
- NSKFDC functions as an **Apex Corporation** for **all round socio-economic upliftment of the Safai Karmcharis, Scavengers and their dependants throughout India**.
- NSKFDC provides different types of loan and non-loan based schemes and also plays vital role in elimination of manual scavenging.
- NSKFDC has been designated as the **Nodal Agency** for **implementation of the Central Sector Self Employment Scheme for Rehabilitation of Manual Scavengers (SRMS) under the aegis of the Ministry of Social Justice & Empowerment**.
- NSKFDC has recently issued advisory to municipalities, panchayats urging them to ensure that all sanitation workers are provided Personal Protective Equipment (PPE) to remain safe during the novel coronavirus pandemic.

The objective of SRMS is to provide the following benefits to the identified Manual Scavengers:

1. Onetime cash assistance of Rs.40000/- to identified manual scavenger.
0. Loans for project cost upto Rs. 15.00 lacs on concessional rates of interest to the manual scavenger/dependent.
0. Credit linked back-end capital subsidy upto Rs. 3,25,000/-

0. Skill Development Training upto two years with stipend of Rs.3000/- per month to the manual scavenger/dependent who opts for such training.

The scheme was further revised with the approval SFC from the year 2017-18 by adding the following components:

1. Health Camps.
2. Training and Awareness Camps for Sewage/Septic. Workers and distribution of common safety aids.
3. Behavioral Skill Development Training.

7. UPSC Current Affairs: Green Financing| Page - I.E UPSC Syllabus: Environment| GS -III Sub

Theme: Climate Change| **Article 2: Green financing**

About Green Financing

- Green financing encompasses financial resources obtained locally, nationally, or internationally from various public, private, and alternative channels.
- Its **primary objective is to bolster actions aimed at mitigating greenhouse gas emissions and adapting to the adverse consequences** of changing climate.
- The ultimate goal of green financing is to assist in achieving the target of limiting global warming to an increase of no more than 1.5°C above pre-industrial levels.

Mechanisms for Green Financing

- The **Global Environment Facility (GEF)** has been instrumental as an operating entity of the financial mechanism since the Convention came into force in 1994. It manages two funds: the **Special Climate Change Fund (SCCF)** and the **Least Developed Countries Fund (LDCF)**.
- The **Adaptation Fund (AF)** was established in 2001 to provide financial support for concrete adaptation projects and programs in developing countries that are particularly vulnerable to the adverse effects of climate change, as outlined in the Kyoto Protocol.
- The **Green Climate Fund (GCF)**, established during COP 16 in 2010, garnered commitments from developed countries to mobilise \$100 billion annually by 2020 to aid developing nations in achieving their Nationally Determined Contributions (NDC) towards low-emission and climate-resilient pathways.
- Other UN-backed international climate funds include the **Clean Technology Fund (CTF)** and **Climate Investment Funds (CIFs)**.
- National governments also allocate funds for green financing initiatives. For example, the **National Adaptation Fund for Climate Change (NAFCC)** was established in the year 2015-16 to support concrete adaptation activities that mitigate the adverse effects of climate change.
- **Carbon pricing instruments** are another avenue for green financing. These include **carbon market approaches**, where emissions trading schemes are established, and **carbon credits** are bought and sold based on market prices per metric ton of CO2 equivalent.
 - **Carbon emissions taxes**, including fossil fuel taxes and the elimination of fossil fuel subsidies, also fall under this category.
 - The government plans to establish the **Indian Carbon Market (ICM)**, aiming to decarbonize the Indian economy by pricing greenhouse gas emissions through the trading of Carbon Credit Certificates.

Challenges in Mobilising Climate Finance

- **Inadequate Funding:** While climate finance exceeded half a trillion dollars in 2017 and 2018, the Intergovernmental Panel on Climate Change (IPCC) estimated that annual investments of \$1.6 to \$3.8 trillion are required to stay within the 1.5°C to 2°C warming scenario.
- **Underfunding of Adaptation:** The majority of tracked finance continues to be directed toward mitigation efforts rather than adaptation, as noted by the Climate Policy Initiative.
- **Knowledge Gaps:** Issues such as the absence of common definitions for key climate finance concepts and financial accounting rules contribute to knowledge gaps.
- **Scarce Demonstrable Models:** There's a shortage of demonstrable, tested models for delivering climate finance.
- **Low "Bankability" of Projects:** Some climate action projects struggle to secure funding due to insufficient data on future returns and investment risks.
- **Insufficient Financing for Least Developed Countries (LDCs) and Small Island Developing States (SIDS):** Despite commitments made during COP 19 to provide finance, technology, and capacity building to help vulnerable countries recover from climate-related disasters, little progress has been made in solidifying the financial commitments of developed nations.

The Way Forward

- **Introduce carbon-pricing mechanisms** and climate data systems to prioritise climate-smart investments.
- **Enhance capital investment planning** at the local government level by integrating carbon pricing and climate-smart metrics.
- Multilateral development banks (MDBs) and development finance institutions (DFIs) should align their portfolios with the goals of the Paris Agreement.
- **Implement incentive structures and mechanisms**, such as tax rebates, to encourage private sector investments in mitigation and adaptation activities in developing countries.
- **Standardise definitions of climate finance** to promote best practices and reporting at the project level.
- **Balance investments in climate adaptation and mitigation** based on impact and return on investment assessments.
- **Develop additional funding mechanisms to compensate for loss and damage**, potentially by establishing new funds to pool investments from developed nations and global insurance mechanisms.